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Indian Head, MD 20640-5035				
		EXAMINER		
		MCDONOUGH, JAMES E		
		ART UNIT	PAPER NUMBER	
		1793		
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		12/05/2008	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/729,266		LAIB, GERALD	
	Examiner		Art Unit	
	JAMES E. MCDONOUGH		1793	

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2008.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 18-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-7 and 18-20 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

New Rejection

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not understood how the "azide-based" explosive salt is comprised of "fulminates".

Original Rejection

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baginski et al. (USP 6,722,692) in view of Hee Cheul Choi et al. (Positive and negative photopatterning of metal oxides on silicon via bipolar electrochemical deposition) hereafter Choi in further view of Faber et al. (US 2001/0030007).

Baginski et al. discloses an explosive device formed by depositing a metal layer of a cation (i.e. a transition metal) on a substrate layer and reacting the metal layer to form an explosive layer (abstract and column 1, line 1 to column 2, line 59). The explosive layer is comprised of an explosive with a predetermined thickness (column 6, line 33 to column 7, line 12).

Although, Baginski et al. does not specifically disclose the explosive layer of a metal azide, because, Faber teaches that silver azide is used in ignition elements because it serves the dual function of simultaneously acting as a heat conducting material and improving the ignition sensitivity (paragraph 0006), it would have been prima facie obvious to someone of ordinary skill in the art at the time the invention was made to modify the teachings of Baginski, by incorporating silver azide into the composition as suggested by Faber.

Baginski et al. further discloses that the metal layer may be deposited on the substrate by any known deposition method (column 3, lines 30-50). Although Baginski et al. does not specifically disclose the method of depositing the metal layer on the

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substrate by an "in-situ" method, Choi et al. does. Choi et al. teaches various in-situ deposition methods for depositing metal layers on substrates.

Baginski et al. and Choi et al. are analogous art because they are from the same field of endeavor: thin film deposition. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the in-situ deposition methods for metal layers on substrates as suggested by Choi et al. with the explosive device as suggested by Baginski et al. The suggestion/motivation for doing so would have been to obtain an explosive device using a known deposition method as suggested by Baginski et al.

Baginski et al. and Choi et al. disclose the claimed invention except for expressly stating the specific explosive of copper azide and the specific amount of explosive being no more than 10 milligrams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the specific explosive in the specific amount, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and applicant has not state that the specific explosive or the specific amount is a criticality of the present invention. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

Applicants argue that since the two original references (i.e. Baginski and Choi) are an ineffective combination that the addition of a third reference (i.e. Faber) is also

an ineffective combination. This is not persuasive because the third reference was added to overcome the deficiency of the two references.

Applicants argue that because examiner found applicants arguments persuasive in the "current office action" that it is understood that the references are not properly combined. This is not persuasive, as applicants arguments of different fields of endeavor was not the argument that the examiner found persuasive, applicants arguments that examiner found persuasive and subsequently removed the rejection because of, was applicants arguments that Baginski failed to teach azide based explosive salt, and this is why Faber was added to the rejection, to cure these deficiencies. With regard to applicants remark that Baginski teaches away, applicants are reminded that for a reference to teach away there must be some teaching or suggestion that the specific combination is not possible or will not work, and the examiner can find no such teaching or suggestion, and applicants have failed to provide any.

Applicants argue the examiner has improperly used hindsight analysis. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicants argue that even assuming the combination would happen, Baginski fails to teach reacting the metal layer with a reactant for forming a primary explosive layer. This is not persuasive because as stated in the rejection Baginski teaches depositing a metal layer on a substrate and reacting it to form an explosive layer.

Applicants argue that they agree with the Office action dated 12/6/2006 that Baginski does not teach depositing a metal layer on a substrate, and therefore the rejection should be withdrawn. This is not persuasive because the new examiner has reexamined the reference and finds this earlier analysis incorrect, and the new examiners analysis of the Baginski reference given stated above.

Applicants argue that they earlier asserted that Baginski does not teach the use of nickel azide nor did the 12/6/2006 office action provide the required citation. This is not persuasive because: 1.) At the time the use of nickel azide was not required in claim1. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., nickel azide) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). 2.) Applicants are reminded that the instant claims still do not require the use of nickel azide, as copper, cadmium and silver are shown as functional equivalents. 3.) The reference of Faber was added to cure this deficiency.

Applicants again argue that their previous arguments were found persuasive. It is again pointed out that applicants made many arguments against the earlier rejections,

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these rejections were withdrawn if any of the arguments against them were found persuasive, the fact that some arguments were found persuasive and subsequently were withdrawn, in no way concedes that all of the applicants arguments were persuasive and valid, to the contrary most of applicants arguments were found unpersuasive, but enough were found to be persuasive that the rejections were withdrawn. Since the rejections were found to be deficient and withdrawn the remaining arguments regarding these rejections and not applicable to the new rejection were found moot, and for sake of clarity and to forward prosecution they were not discussed any further, as they were found to be not relevant to the pending rejections. Therefore, the office action of 9/6/2007 does not agree with applicants current arguments.

Applicants argue that the statements of the 9/6/2007 office action conflict with those of the 12/6/2006 office action. While this may be correct and was discussed above, it was stated that the new examiner upon reviewing applicants arguments and the references, came to a different conclusion about the references, and the fact that the current examiner disagrees with the interpretation of the earlier examiner, does not weaken the current examiners position, and it is noted that applicants also disagreed with the some of the earlier examiners interpretations of the references.

Applicants individually argues against the references of Choi and Faber, however this is considered to be improper piece meal analysis of the references. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on

combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **JAMES E. MCDONOUGH** whose telephone number is (571)272-6398. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jerry A Lorengo/
Supervisory Patent Examiner, Art Unit 1793

JEM 5/31/2008